## Appendix A

## PacifiCorp Avoided Cost (GRID and Differential Revenue Requirement) Model Updates from January 2007 through April 2007 Case No. 03-035-14

**GRID Project Name:** Avoided Costs – 2007 Apr.

**Official Market Price Forecast:** March 2007 (Gas and Market Prices). Mark to Market and Gas Swaps fully allocated to gas-fired plants.

**Load Forecast (Retail and Clark):** Retail load forecast is updated to 20-Year 2007 IRP load forecast dated March 2007, extended after 2027, using average growth rate 2018 through 2027 by bubble. Clark load forecast for 2007 is updated to load forecast dated October 2006.

**Fuel Prices** (Coal): 2007 through 2016 coal prices from C&T 10-year plan, dated February 6, 2007. 2017 thereafter, prices from the 2006 IRP coal forecast of April 2006. Incremental costs dated January 22, 2007.

**IRP Resource Expansion Plan:** IRP resources were changed to reflect resources suggested by the Commission. These RFP resources are IPP 3 (340 MW – June 2012), and Jim Bridger 5 (527 MW – June 2013). IRP Wind (East Main, WA, West Main, WY) and IRP other market purchases remain unchanged from existing 2004 IRP Update modeling. Hunter 4 and a 50MW expansion to Blundell, noted in the January 2007 filing, have been removed because they are no longer in the 10-Year plan.

**IRP Front Office Transactions (FOT):** FOT (from the 2004 IRP Update (4 Corners, Mona and West Main)) have been modified to expire in June 2012. A new FOT has been added (833 MW in June 2012).

**IRP Partial Displacement Thermal Resource**: Prior to the inclusion of the avoided cost resource, FOT is partially displaced and IPP 3 is fully displaced by 390 MW of potential qualifying facility (QF) resources (DG Lakeview, FMC Green River Soda, Hampton Forest Products and Holly Refinery). With the inclusion of the avoided cost resource (477 MW), FOT is partially displaced and Jim Bridger 5 along with IPP 3 are fully displaced. In the January 2007 filing, prior to the inclusion of the avoided cost resource, FOT and IPP3 were partially displaced by 176 MW. Following the inclusion of the avoided cost resource (164 MW), FOT was partially displaced and IPP 3 was fully displaced.

**IRP Partial Displacement Wind Resource:** A total of 1,300 MW of wind is included in the expansion plan by 2012. IRP wind resources are partially displaced by 688 MW of existing and potential wind QFs and renewable resources (Goodnoe, Leaning Juniper, Marengo, Mountain Wind 1, Mountain Wind 2, Pioneer Ridge, Schwendiman, Spanish Fork, Wolverine Creek, and RAAM). Wind partial displacement was 817 MW in the January 2007 filing.

**Size of the Avoided Cost Resource:** In docket 03-035-14, the docket where the Commission approved the partial displacement revenue requirement method, the size of the avoided cost resource was 525 MW which was the size of the next deferrable base load thermal resources.

In the current case, the avoided cost resource was 477 MW [340 MW (IPP-3) plus 527 MW (Bridger 5) less 390 MW of potential QF resources]. In the last update, the avoided cost resource was 164 MW [340 MW (IPP-3) less 176 MW of potential QF resources].

Ready Reserve: West ready reserve transfer cap updated.

**Transfer Capability:** Includes three transmission upgrades (1) IRP – Jim Bridger -> Utah North (see "Partial Displacement of Transmission Resource"), (2) IRP – Utah South -> Four Corners, and (3) Path C -> Utah North (IRP Expansion).

**Partial Displacement of Transmission Resource:** The transmission upgrade "IRP – Jim Bridger -> Utah North is directly related to the identification of Jim Bridger 5 as an IRP/RFP resource, anticipated to be online in 2013. In the base case study, Jim Bridger 5 is partially displaced by 50 MW; therefore the transmission upgrade is similarly resized. In the avoided cast study, Jim Bridger 5 is fully displaced by a further 477 MW; therefore the transmission upgrade is removed.

**Hydro Resources:** Hydro forecast updated to February 15, 2007. Swift 2 modeling was updated.

**Thermal Resources:** Hermiston modeling revised to reflect assumptions after the gas contract expires. Thermal heat rates and planned outages updated to 48 months ended December 2006. Gas Sales and Gas Swaps have also been updated.

**Wind Resources:** The modeling of existing wind resource capacity factors was updated to 48 months ended December 2006.

**Long-Term Contracts:** Tesoro QF (CY2007), Weyerhaeuser Reserve (CY2007), Roseburg Forest Products CA and DSM Utah Irrigation were added as new resources. The existing UAMPS p296212 (Nebo) contract was extended.

**Long-Term Contracts Removed**: AMPS Resources (Cove Fort) contract has been removed.

Long-Term Contract Modeling Updates: APS Supplemental Purchase, BPA Peaking, Biomass QF, Biomass Non-Generation, BPA South Idaho Exchange, BPA Wind Sale, D. R. Johnson QF, DSM Cool Keeper Reserve, DSM Idaho Irrigation, Redding Exchange, ExxonMobil QF, Marengo, Goodnoe East, Fort James, Clark S&I, Clark River Road Reserve, Wolverine Creek, Idaho RTSA Return, Pipeline Kern River Gas, Mountain Wind 1 QF, Mountain Wind 2 QF, Simplot Phosphates, Sunnyside QF, Grant – Priest Rapids, Grant – Wannapum, Grant County – 10 aMW, Grant Displacement, small purchases east, non-owned generation obligations and small state QFs were updated. STF Index Trades – East/West –

Buy/Sell contracts added to capture dollar value of index short term firm transactions. Updates on EFOR data impacted BPA FC II Generation, BPA FC IV Generation, Biomass Non-Generation, EWEB FC I Generation, Foote Creek I Generation, PSCo FC III Generation, Rock River I, SCL State Line generation.

**Potential QF Contracts:** DG Lakeview, Hampton Forest Products and Holly Refinery were added as potential QF resources. FMC Green River Soda, added in the January 2007 filing, has been changed to reflect different modeling assumptions. FMC Green River Soda was originally modeled as a 73 MW 91% capacity factor QF commencing March 2011; it is now modeled as a 23.7 MW 90% capacity factor QF commencing January 2008, increasing to a 266 MW 90% capacity factor QF from January 2012. Coyote Wind, Bear Lake 1, and Wyoming Sugar were removed as potential QF resources.

**Transmission:** Minor updates to firm wheeling costs and transfer capability.

**Short-Term Firm (STF) Transactions**: Updated to include all executed STF contracts as of April 3, 2007.